APPENDIX A: FULL RESULTS FOR THE LIGHT CURVES ANALYSED IN THIS WORK

The tables in this Appendix contain the detailed results of the analysis of WASP-103. Note that whilst all the results are best fits to the relevant data, some parameters are unphysical (for example some limb darkening coefficients imply that the limb of the star produces a negative amount of light). In these cases the unphysical results have *not* been used but are retained in the tables for completeness.

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Table A1. Parameters of the JKTEBOP best fits of the DFOSC R-band light curve of WASP-103, using different approaches to LD. For each to LD. For each part of the table the upper quantities are fitted parameters and the lower quantities are derived parameters. T_0 is given as BJD(TDB) $-$ 2456000.0. The light curve contains 1009 datapoints.

	Linear LD law	Quadratic LD law	Square-root LD law	Logarithmic LD law	Cubic LD law
All LD coefficients fixed					
$r_{\rm A} + r_{\rm b}$	0.3744 ± 0.0038	0.3716 ± 0.0029	0.3713 ± 0.0023	0.3703 ± 0.0025	0.3782 ± 0.0042
k	0.11094 ± 0.00043	0.11153 ± 0.00033	0.11137 ± 0.00031	0.11240 ± 0.00031	0.11455 ± 0.00032
i (deg.)	87.72 ± 2.00	89.56 ± 89.96	89.97 ± 1.80	88.63 ± 1.65	84.78 ± 0.92
$u_{\rm A}$	0.58 fixed	0.35 fixed	0.18 fixed	0.65 fixed	0.30 fixed
$v_{\rm A}$		0.29 fixed	0.57 fixed	0.31 fixed	0.15 fixed
T_0	832.594132 ± 0.000072	832.594119 ± 0.000065	832.594122 ± 0.000066	832.594115 ± 0.000067	832.594108 ± 0.000060
$r_{\rm A}$	0.3370 ± 0.0033	0.3343 ± 0.0025	0.3341 ± 0.0020	0.3329 ± 0.0022	0.3394 ± 0.0037
$r_{\rm b}$	0.03739 ± 0.00050	0.03729 ± 0.00038	0.03721 ± 0.00030	0.03742 ± 0.00032	0.03887 ± 0.00052
σ ($m$mag)	0.9651	0.9236	0.9303	0.9141	0.9183
$\chi^2_{\rm red}$	1.2378	1.0865	1.1118	1.0554	1.0759
Fitting for the linear LD coefficient and perturbing the nonlinear LD coefficient					
$r_{\rm A} + r_{\rm b}$	0.3733 ± 0.0042	0.3691 ± 0.0033	0.3717 ± 0.0040	0.3698 ± 0.0032	0.3715 ± 0.0039
k	0.11385 ± 0.00044	0.11260 ± 0.00048	0.11314 ± 0.00044	0.11267 ± 0.00041	0.11316 ± 0.00051
i (deg.)	86.1 ± 1.3	89.5 ± 1.9	87.1 ± 2.0	88.5 ± 1.8	87.2 ± 1.9
$u_{\rm A}$	0.402 ± 0.013	0.275 ± 0.033	0.074 ± 0.040	0.631 ± 0.052	0.371 ± 0.019
$v_{\rm A}$		0.29 perturbed	0.57 perturbed	0.31 perturbed	0.15 perturbed
T_0	832.594115 ± 0.000063	832.594115 ± 0.000064	832.594114 ± 0.000066	832.594114 ± 0.000062	832.594114 ± 0.000065
$r_{\rm A}$	0.3351 ± 0.0037	0.3318 ± 0.0029	0.3339 ± 0.0035	0.3324 ± 0.0028	0.3337 ± 0.0034
$r_{\rm b}$	0.03816 ± 0.00054	0.03736 ± 0.00043	0.03778 ± 0.00051	0.03745 ± 0.00041	0.03777 ± 0.00051
σ ($m$mag)	0.9123	0.9146	0.9126	0.9135	0.9126
$\chi^2_{\rm red}$	1.0536	1.0559	1.0522	1.0534	1.0521
Fitting for both LD coefficients					
$r_{\rm A} + r_{\rm b}$	0.3733 ± 0.0041	0.3710 ± 0.0148	0.3717 ± 0.0041	0.3715 ± 0.0056	0.3685 ± 0.0119
k	0.11385 ± 0.00043	0.11330 ± 0.00503	0.11316 ± 0.00068	0.11323 ± 0.00080	0.11271 ± 0.00338
i (deg.)	86.1 ± 1.2	87.2 ± 2.1	87.1 ± 2.1	87.1 ± 2.2	89.7 ± 2.2
$u_{\rm A}$	0.402 ± 0.013	0.346 ± 0.242	0.083 ± 0.248	0.524 ± 0.128	0.364 ± 0.045
$v_{\rm A}$		0.12 ± 0.87	0.55 ± 0.44	0.17 ± 0.18	0.20 ± 0.25
T_0	832.594115 ± 0.000063	832.594115 ± 0.000066	832.594114 ± 0.000064	832.594114 ± 0.000066	832.594114 ± 0.000062
$r_{\rm A}$	0.3351 ± 0.0035	0.3332 ± 0.0148	0.3339 ± 0.0036	0.3337 ± 0.0048	0.3312 ± 0.0117
$r_{\rm b}$	0.03816 ± 0.00054	0.03775 ± 0.00053	0.03779 ± 0.00054	0.03779 ± 0.00059	0.03733 ± 0.00059
σ ($m$mag)	0.9123	0.9128	0.9126	0.9126	0.9130
$\chi^2_{\rm red}$	1.0536	1.0525	1.0521	1.0522	1.0527

Table A2. Parameters of the JKTEBOP best fits of the DFOSC I-band light curve of WASP-103, using different approaches to LD. For each part of the table the upper quantities are fitted parameters and the lower quantities are derived parameters. T_0 is given as BJD(TDB) − 2456000.0. The light curve contains 113 datapoints.

	Linear LD law	Quadratic LD law	Square-root LD law	Logarithmic LD law	Cubic LD law
All LD coefficients fixed					
$r_{\rm A}+r_{\rm b}$	0.3829 ± 0.0140	0.3692 ± 0.0074	0.3756 ± 0.0116	0.3821 ± 0.0136	0.3788 ± 0.0123
k	0.11047 ± 0.00113	0.10950 ± 0.00076	0.11000 ± 0.00094	0.11093 ± 0.00090	0.11186 ± 0.00084
i (deg.)	84.2 ± 3.5	88.8 ± 3.4	85.9 ± 3.6	84.2 ± 3.2	84.3 ± 2.9
$u_{\rm A}$	0.46 fixed	0.25 fixed	0.08 fixed	0.57 fixed	0.25 fixed
$v_{\rm A}$		0.32 fixed	0.58 fixed	0.30 fixed	0.16 fixed
T_0	779.83877 ± 0.00024	779.83874 ± 0.00022	779.83875 ± 0.00023	779.83873 ± 0.00023	779.83870 ± 0.00022
$r_{\rm A}$	0.3448 ± 0.0123	0.3328 ± 0.0066	0.3384 ± 0.0102	0.3439 ± 0.0120	0.3407 ± 0.0108
$r_{\rm b}$	0.03809 ± 0.00170	0.03644 ± 0.00090	0.03722 ± 0.00137	0.03815 ± 0.00159	0.03811 ± 0.00140
σ ($m$mag)	0.8697	0.8355	0.8458	0.8262	0.8163
$\chi^2_{\rm red}$	1.1486	1.0584	1.0844	1.0329	1.0047
Fitting for the linear LD coefficient and perturbing the nonlinear LD coefficient					
$r_{\rm A}+r_{\rm b}$	0.382 ± 0.014	0.376 ± 0.013	0.378 ± 0.013	0.376 ± 0.013	0.377 ± 0.012
k	0.1127 ± 0.0011	0.1116 ± 0.0011	0.1120 ± 0.0010	0.1117 ± 0.0011	0.1119 ± 0.0011
i (deg.)	83.4 ± 2.8	85.1 ± 3.8	84.4 ± 3.4	84.9 ± 3.7	84.7 ± 3.6
$u_{\rm A}$	0.268 ± 0.049	0.115 ± 0.067	-0.071 $\pm$ 0.066	0.480 ± 0.070	0.233 ± 0.055
$v_{\rm A}$		0.32 perturbed	0.58 perturbed	0.30 perturbed	0.16 perturbed
T_0	779.83867 ± 0.00021	779.83870 ± 0.00021	779.83868 ± 0.00021	779.83869 ± 0.00021	779.83868 ± 0.00021
$r_{\rm A}$	0.343 ± 0.012	0.338 ± 0.011	0.340 ± 0.012	0.338 ± 0.011	0.339 ± 0.011
$r_{\rm b}$	0.0387 ± 0.0017	0.0377 ± 0.0015	0.0381 ± 0.0016	0.0378 ± 0.0015	0.0379 ± 0.0015
σ ($m$mag)	0.8186	0.8148	0.8165	0.8156	0.8168
$\chi^2_{\rm red}$	1.0092	1.0014	1.0046	1.0027	1.0054

Table A3. Parameters of the JKTEBOP best fits of the GROND g-band light curve of WASP-103, using different approaches to LD. For each part of the table the upper quantities are fitted parameters and the lower quantities are derived parameters. T_0 is given as BJD(TDB) − 2456000.0. The light curve contains 248 datapoints.

	Linear LD law	Quadratic LD law	Square-root LD law	Logarithmic LD law	Cubic LD law
All LD coefficients fixed					
$r_{\rm A}+r_{\rm b}$	0.3740 ± 0.0072	0.3724 ± 0.0066	0.3708 ± 0.0063	0.3722 ± 0.0062	0.3806 ± 0.0112
k	0.1149 ± 0.0013	0.1158 ± 0.0012	0.1162 ± 0.0011	0.1158 ± 0.0012	0.1201 ± 0.0013
i (deg.)	90.0 ± 3.3	90.0 ± 3.1	90.0 ± 3.0	90.0 ± 2.6	84.0 ± 2.3
$u_{\rm A}$	0.74 fixed	0.54 fixed	0.42 fixed	0.80 fixed	0.45 fixed
$v_{\rm A}$		0.24 fixed	0.39 fixed	0.19 fixed	0.12 fixed
T_0	844.62625 ± 0.00019	844.62625 ± 0.00018	844.62626 ± 0.00018	844.62625 ± 0.00019	844.62625 ± 0.00018
$r_{\rm A}$	0.3355 ± 0.0062	0.3338 ± 0.0057	0.3322 ± 0.0054	0.3336 ± 0.0053	0.3398 ± 0.0096
$r_{\rm b}$	0.03855 ± 0.00110	0.03867 ± 0.00096	0.03860 ± 0.00092	0.03863 ± 0.00093	0.04081 ± 0.00154
σ ($m$mag)	1.1484	1.1170	1.1204	1.1214	1.1283
$\chi^2_{\rm red}$	1.1866	1.0901	1.0977	1.1037	1.0794
Fitting for the linear LD coefficient and perturbing the nonlinear LD coefficient					
$r_{\rm A}+r_{\rm b}$	0.3748 ± 0.0103	0.3716 ± 0.0091	0.3746 ± 0.0096	0.3730 ± 0.0099	0.3747 ± 0.0104
k	0.1191 ± 0.0015	0.1178 ± 0.0016	0.1186 ± 0.0015	0.1182 ± 0.0016	0.1185 ± 0.0015
i (deg.)	85.5 ± 3.3	87.2 ± 3.2	85.8 ± 3.3	86.4 ± 3.3	85.8 ± 3.4
$u_{\rm A}$	0.539 ± 0.038	0.436 ± 0.050	0.315 ± 0.052	0.679 ± 0.061	0.515 ± 0.042
$v_{\rm A}$		0.24 perturbed	0.39 perturbed	0.19 perturbed	0.12 perturbed
T_0	844.62627 ± 0.00017	844.62626 ± 0.00017	844.62626 ± 0.00018	844.62626 ± 0.00017	844.62626 ± 0.00018
$r_{\rm A}$	0.3349 ± 0.0089	0.3324 ± 0.0078	0.3349 ± 0.0083	0.3336 ± 0.0085	0.3350 ± 0.0090
$r_{\rm b}$	0.0399 ± 0.0015	0.0391 ± 0.0014	0.0397 ± 0.0014	0.0394 ± 0.0014	0.0397 ± 0.0015
σ ($m$mag)	1.1206	1.1159	1.1185	1.1176	1.1182
$\chi^2_{\rm red}$	1.0735	1.0648	1.0694	1.0676	1.0687

Table A4. Parameters of the JKTEBOP best fits of the GROND r-band light curve of WASP-103, using different approaches to LD. For each part of the table the upper quantities are fitted parameters and the lower quantities are derived parameters. T_0 is given as BJD(TDB) − 2456000.0. The light curve contains 268 datapoints.

	Linear LD law	Quadratic LD law	Square-root LD law	Logarithmic LD law	Cubic LD law
All LD coefficients fixed					
$r_{\rm A} + r_{\rm b}$	0.3776 ± 0.0079	0.3701 ± 0.0057	0.3697 ± 0.0061	0.3693 ± 0.0047	0.3772 ± 0.0075
k	0.11212 ± 0.00101	0.11253 ± 0.00078	0.11246 ± 0.00084	0.11270 ± 0.00073	0.11561 ± 0.00076
i (deg.)	86.3 ± 2.9	89.8 ± 91.4	89.5 ± 90.0	89.9 ± 3.5	84.6 ± 1.6
$u_{\rm A}$	0.61 fixed	0.35 fixed	0.20 fixed	0.69 fixed	0.30 fixed
$v_{\rm A}$		0.31 fixed	0.55 fixed	0.28 fixed	0.15 fixed
T_0	844.62637 ± 0.00013	844.62635 ± 0.00012	844.62635 ± 0.00012	844.62635 ± 0.00012	844.62633 ± 0.00012
$r_{\rm A}$	0.3395 ± 0.0068	0.3327 ± 0.0050	0.3323 ± 0.0055	0.3319 ± 0.0041	0.3381 ± 0.0066
$r_{\rm b}$	0.03807 ± 0.00107	0.03743 ± 0.00077	0.03737 ± 0.00081	0.03741 ± 0.00064	0.03909 ± 0.00094
σ ($m$mag)	0.7844	0.7100	0.7225	0.7087	0.6882
$\chi^2_{\rm red}$	1.3458	1.0932	1.1354	1.0902	1.0232
Fitting for the linear LD coefficient and perturbing the nonlinear LD coefficient					
$r_{\rm A} + r_{\rm b}$	0.3780 ± 0.0080	0.3739 ± 0.0076	0.3763 ± 0.0086	0.3752 ± 0.0083	0.3760 ± 0.0083
k	0.11584 ± 0.00088	0.11466 ± 0.00095	0.11521 ± 0.00096	0.11491 ± 0.00095	0.11521 ± 0.00092
i (deg.)	84.3 ± 1.6	85.8 ± 2.9	85.0 ± 2.1	85.3 ± 2.5	85.0 ± 2.0
$u_{\rm A}$	0.366 ± 0.028	0.218 ± 0.043	0.045 ± 0.046	0.564 ± 0.053	0.330 ± 0.031
$v_{\rm A}$		0.31 perturbed	0.55 perturbed	0.28 perturbed	0.15 perturbed
T_0	844.62634 ± 0.00012	844.62633 ± 0.00012	844.62633 ± 0.00012	844.62633 ± 0.00012	844.62633 ± 0.00012
$r_{\rm A}$	0.3387 ± 0.0070	0.3355 ± 0.0066	0.3374 ± 0.0075	0.3365 ± 0.0072	0.3372 ± 0.0072
$r_{\rm b}$	0.0392 ± 0.0010	0.0385 ± 0.0010	0.0389 ± 0.0011	0.0387 ± 0.0011	0.0388 ± 0.0011
σ ($m$mag)	0.6868	0.6875	0.6865	0.6868	0.6866
$\chi^2_{\rm red}$	1.0200	1.0209	1.0187	1.0191	1.0187

Table A5. Parameters of the JKTEBOP best fits of the GROND i-band light curve of WASP-103, using different approaches to LD. For each part of the table the upper quantities are fitted parameters and the lower quantities are derived parameters. T_0 is given as BJD(TDB) − 2456000.0. The light curve contains 261 datapoints.

	Linear LD law	Quadratic LD law	Square-root LD law	Logarithmic LD law	Cubic LD law
All LD coefficients fixed					
$r_{\rm A} + r_{\rm b}$	0.3671 ± 0.0075	0.3653 ± 0.0053	0.3651 ± 0.0060	0.3655 ± 0.0051	0.3710 ± 0.0102
k	0.10693 ± 0.00110	0.10791 ± 0.00088	0.10782 ± 0.00097	0.10776 ± 0.00091	0.10985 ± 0.00097
i (deg.)	89.1 ± 3.0	89.9 ± 3.0	89.9 ± 3.1	90.0 ± 2.4	85.3 ± 3.1
$u_{\rm A}$	0.53 fixed	0.26 fixed	0.09 fixed	0.62 fixed	0.25 fixed
$v_{\rm A}$		0.30 fixed	0.58 fixed	0.28 fixed	0.15 fixed
T_0	844.62644 ± 0.00017	844.62643 ± 0.00017	844.62643 ± 0.00016	844.62643 ± 0.00017	844.62641 ± 0.00015
$r_{\rm A}$	0.3316 ± 0.0066	0.3297 ± 0.0046	0.3296 ± 0.0052	0.3299 ± 0.0045	0.3343 ± 0.0090
$r_{\rm b}$	0.03546 ± 0.00101	0.03558 ± 0.00066	0.03553 ± 0.00079	0.03555 ± 0.00068	0.03673 ± 0.00117
σ ($m$mag)	0.9522	0.9109	0.9153	0.9138	0.9065
$\chi^2_{\rm red}$	1.1645	1.0611	1.0723	1.0685	1.0509
Fitting for the linear LD coefficient and perturbing the nonlinear LD coefficient					
$r_{\rm A} + r_{\rm b}$	0.3688 ± 0.0096	0.3657 ± 0.0083	0.3679 ± 0.0091	0.3663 ± 0.0081	0.3673 ± 0.0082
k	0.1098 ± 0.0011	0.1088 ± 0.0011	0.1092 ± 0.0011	0.1090 ± 0.0011	0.1092 ± 0.0011
i (deg.)	85.8 ± 3.2	87.6 ± 3.0	86.5 ± 3.2	87.2 ± 3.0	86.6 ± 3.0
$u_{\rm A}$	0.328 ± 0.040	0.185 ± 0.054	-0.011 ± 0.057	0.526 ± 0.064	0.292 ± 0.046
$v_{\rm A}$		0.30 perturbed	0.58 perturbed	0.28 perturbed	0.15 perturbed
T_0	844.62641 ± 0.00016	844.62642 ± 0.00017	844.62641 ± 0.00015	844.62641 ± 0.00015	844.62641 ± 0.00017
$r_{\rm A}$	0.3323 ± 0.0084	0.3298 ± 0.0073	0.3317 ± 0.0080	0.3303 ± 0.0072	0.3311 ± 0.0072
$r_{\rm b}$	0.0365 ± 0.0011	0.0359 ± 0.0010	0.0362 ± 0.0011	0.0360 ± 0.0010	0.0362 ± 0.0011
σ ($m$mag)	0.9054	0.9056	0.9049	0.9050	0.9048
$\chi^2_{\rm red}$	1.0487	1.0482	1.0471	1.0471	1.0469

Table A6. Parameters of the JKTEBOP best fits of the GROND z-band light curve of WASP-103, using different approaches to LD. For each part of the table the upper quantities are fitted parameters and the lower quantities are derived parameters. T_0 is given as BJD(TDB) − 2456000.0. The light curve contains 265 datapoints.

	Linear LD law	Quadratic LD law	Square-root LD law	Logarithmic LD law	Cubic LD law
All LD coefficients fixed					
$r_{\rm A}+r_{\rm b}$	$0.3682^{+0.0097}_{-0.0022}$	$0.3675^{+0.0106}_{-0.0022}$	$0.3661^{+0.0091}_{-0.0022}$	$0.3667^{+0.0138}_{-0.0033}$	$0.3861^{+0.0105}_{-0.0118}$
k	$0.10955^{+0.00113}_{-0.00101}$	$0.11019^{+0.00093}_{-0.00093}$	$0.11052^{+0.00099}_{-0.00092}$	$0.11038^{+0.00109}_{-0.00102}$	$0.11274^{+0.00104}_{-0.00108}$
i (deg.)	$89.96^{+0.93}_{-3.95}$	$89.94^{+0.93}_{-4.03}$	$89.92^{+1.08}_{-3.63}$	$89.79^{+2.31}_{-3.74}$	$82.80^{+2.10}_{-1.56}$
$u_{\rm A}$	0.47 fixed	0.20 fixed	0.02 fixed	0.55 fixed	0.20 fixed
$v_{\rm A}$		0.33 fixed	0.57 fixed	0.28 fixed	0.16 fixed
T_0	$844.62671^{+0.00019}_{-0.00018}$	$844.62667^{+0.00019}_{-0.00019}$	$844.62665^{+0.00018}_{-0.00018}$	$844.62666^{+0.00018}_{-0.00018}$	$844.62662^{+0.00017}_{-0.00018}$
$r_{\rm A}$	$0.3319^{+0.0087}_{-0.0019}$	$0.3311^{+0.0093}_{-0.0018}$	$0.3297^{+0.0082}_{-0.0019}$	$0.3303^{+0.0122}_{-0.0028}$	$0.3470^{+0.0094}_{-0.0103}$
$r_{\rm b}$	$0.0364^{+0.0012}_{-0.0005}$	$0.0365^{+0.0012}_{-0.0004}$	$0.0364^{+0.0010}_{-0.0005}$	$0.0365^{+0.0016}_{-0.0006}$	$0.0391^{+0.0012}_{-0.0014}$
σ ($m$mag)	1.0556	1.0382	1.0368	1.0368	1.0454
$\chi^2_{\rm red}$	1.0686	1.0272	1.0260	1.0254	1.0405
Fitting for the linear LD coefficient and perturbing the nonlinear LD coefficient					
$r_{\rm A}+r_{\rm b}$	$0.3643^{+0.0173}_{-0.0040}$	$0.3670^{+0.0109}_{-0.0028}$	$0.3657^{+0.0085}_{-0.0026}$	$0.3663^{+0.0098}_{-0.0030}$	$0.3657^{+0.0097}_{-0.0030}$
k	$0.1110^{+0.0013}_{-0.0012}$	$0.1104^{+0.0012}_{-0.0011}$	$0.1107^{+0.0012}_{-0.0011}$	$0.1105^{+0.0011}_{-0.0011}$	$0.1107^{+0.0012}_{-0.0012}$
i (deg.)	$89.51^{+2.47}_{-4.29}$	$89.92^{+1.20}_{-4.20}$	$89.97^{+0.83}_{-3.82}$	$89.98^{+0.87}_{-4.19}$	$89.97^{+0.88}_{-4.17}$
$u_{\rm A}$	$0.336^{+0.042}_{-0.046}$	$0.183^{+0.049}_{-0.059}$	$0.006^{+0.058}_{-0.061}$	$0.537^{+0.068}_{-0.062}$	$0.301^{+0.043}_{-0.047}$
$v_{\rm A}$		0.33 perturbed	0.57 perturbed	0.28 perturbed	0.16 perturbed
T_0	$844.62663^{+0.00017}_{-0.00019}$	$844.62666^{+0.00017}_{-0.00019}$	$844.62664^{+0.00018}_{-0.00017}$	$844.62665^{+0.00019}_{-0.00019}$	$844.62664^{+0.00017}_{-0.00017}$
$r_{\rm A}$	$0.3279^{+0.0151}_{-0.0037}$	$0.3305^{+0.0095}_{-0.0025}$	$0.3293^{+0.0074}_{-0.0023}$	$0.3299^{+0.0086}_{-0.0028}$	$0.3293^{+0.0087}_{-0.0027}$
$r_{\rm b}$	$0.0364^{+0.0019}_{-0.0007}$	$0.0365^{+0.0013}_{-0.0005}$	$0.0364^{+0.0011}_{-0.0005}$	$0.0365^{+0.0012}_{-0.0005}$	$0.0364^{+0.0012}_{-0.0005}$
σ ($m$mag)	1.0381	1.0381	1.0368	1.0368	1.0366
$\chi^2_{\rm red}$	1.0294	1.0266	1.0257	1.0251	1.0251

Table A7. Parameters of the JKTEBOP best fits of the CASLEO R-band light curve of WASP-103, using different approaches to LD. For each part of the table the upper quantities are fitted parameters and the lower quantities are derived parameters. T_0 is given as BJD(TDB) − 2456000.0. The light curve contains 129 datapoints.

	Linear LD law	Quadratic LD law	Square-root LD law	Logarithmic LD law	Cubic LD law
All LD coefficients fixed					
$r_{\rm A}+r_{\rm b}$	$0.370^{+0.016}_{-0.006}$	$0.370^{+0.023}_{-0.007}$	$0.370^{+0.016}_{-0.005}$	$0.368^{+0.017}_{-0.005}$	$0.365^{+0.019}_{-0.005}$
k	$0.1099^{+0.0027}_{-0.0024}$	$0.1106^{+0.0029}_{-0.0027}$	$0.1104^{+0.0026}_{-0.0026}$	$0.1111^{+0.0025}_{-0.0023}$	$0.1121^{+0.0024}_{-0.0024}$
i (deg.)	$89.95^{+1.03}_{-5.40}$	$89.26^{+2.72}_{-4.91}$	$89.99^{+1.00}_{-5.18}$	$89.96^{+0.98}_{-5.25}$	$89.84^{+2.33}_{-4.62}$
$u_{\rm A}$	0.58 fixed	0.35 fixed	0.18 fixed	0.65 fixed	0.30 fixed
$v_{\rm A}$		0.29 fixed	0.57 fixed	0.31 fixed	0.15 fixed
T_0	$882.57449^{+0.00059}_{-0.00051}$	$882.57463^{+0.00051}_{-0.00055}$	$882.57457^{+0.00052}_{-0.00047}$	$882.57464^{+0.00050}_{-0.00045}$	$882.57466^{+0.00044}_{-0.00043}$
$r_{\rm A}$	$0.333^{+0.014}_{-0.004}$	$0.333^{+0.019}_{-0.006}$	$0.333^{+0.014}_{-0.004}$	$0.331^{+0.015}_{-0.004}$	$0.328^{+0.017}_{-0.004}$
$r_{\rm b}$	$0.0366^{+0.0022}_{-0.0012}$	$0.0369^{+0.0028}_{-0.0015}$	$0.0368^{+0.0020}_{-0.0012}$	$0.0368^{+0.0022}_{-0.0011}$	$0.0368^{+0.0022}_{-0.0012}$
σ ($m$mag)	1.5963	1.5624	1.5674	1.5484	1.5412
$\chi^2_{\rm red}$	1.0586	1.0187	1.0242	1.0036	0.9998
Fitting for the linear LD coefficient and perturbing the nonlinear LD coefficient					
$r_{\rm A}+r_{\rm b}$	$0.364^{+0.016}_{-0.005}$	$0.367^{+0.025}_{-0.007}$	$0.367^{+0.022}_{-0.007}$	$0.367^{+0.013}_{-0.005}$	$0.366^{+0.017}_{-0.006}$
k	$0.1121^{+0.0025}_{-0.0025}$	$0.1117^{+0.0027}_{-0.0027}$	$0.1119^{+0.0027}_{-0.0028}$	$0.1116^{+0.0028}_{-0.0023}$	$0.1118^{+0.0027}_{-0.0025}$
i (deg.)	$89.95^{+1.21}_{-5.09}$	$89.66^{+2.64}_{-5.70}$	$88.30^{+2.32}_{-5.30}$	$89.97^{+0.86}_{-4.91}$	$89.89^{+1.26}_{-5.46}$
$u_{\rm A}$	$0.378^{+0.073}_{-0.076}$	$0.236^{+0.088}_{-0.093}$	$0.044^{+0.087}_{-0.099}$	$0.595^{+0.095}_{-0.102}$	$0.341^{+0.077}_{-0.088}$
$v_{\rm A}$		0.29 perturbed	0.57 perturbed	0.31 perturbed	0.15 perturbed
T_0	$882.57461^{+0.00049}_{-0.00045}$	$882.57468^{+0.00048}_{-0.00049}$	$882.57465^{+0.00048}_{-0.00045}$	$882.57467^{+0.00046}_{-0.00043}$	$882.57464^{+0.00049}_{-0.00046}$
$r_{\rm A}$	$0.328^{+0.015}_{-0.004}$	$0.330^{+0.022}_{-0.007}$	$0.330^{+0.019}_{-0.006}$	$0.330^{+0.011}_{-0.005}$	$0.329^{+0.015}_{-0.005}$
$r_{\rm b}$	$0.0367^{+0.0020}_{-0.0011}$	$0.0368^{+0.0031}_{-0.0015}$	$0.0369^{+0.0026}_{-0.0013}$	$0.0368^{+0.0018}_{-0.0011}$	$0.0368^{+0.0022}_{-0.0012}$
σ ($m$mag)	1.5385	1.5434	1.5430	1.5428	1.5412
$\chi^2_{\rm red}$	0.9938	0.9998	0.9997	0.9993	0.9973

Table A8. Derived physical properties of WASP-103 derived via a calibration based on detached eclipsing binary star systems (dEBs) or each five sets of theoretical stellar models: Claret (Claret 2004), Y^2 (Demarque et al. 2004), Teramo (Pietrinferni et al. 2004), VRSS (VandenBerg et al. 2006) and DSEP (Dotter et al. 2008).

	This work (dEB constraint)	This work (Claret models)	This work (Y^2 models)	This work (Teramo models)	This work (VRSS models)	This work (DSEP models)
K_b ($\mathrm{km\,s^{-1}}$)	237.4 ± 7.0	232.0 ± 5.2	232.8 ± 4.8	232.0 ± 6.3	232.5 ± 5.8	230.8 ± 6.0
M_A ($\mathrm{M}_\odot$)	1.290 ± 0.113	1.204 ± 0.082	1.216 ± 0.075	1.204 ± 0.097	1.212 ± 0.089	1.185 ± 0.092
R_A ($\mathrm{R}_\odot$)	1.452 ± 0.046	1.419 ± 0.037	1.424 ± 0.033	1.419 ± 0.042	1.422 ± 0.039	1.412 ± 0.041
$\log g_\mathrm{A}$ (cgs)	4.225 ± 0.015	4.215 ± 0.012	4.216 ± 0.013	4.215 ± 0.015	4.216 ± 0.014	4.212 ± 0.014
ρ_A ($\rho_\odot$)	0.421 ± 0.013	0.421 ± 0.013	0.421 ± 0.013	0.421 ± 0.013	0.421 ± 0.013	0.421 ± 0.013
M_b ($\mathrm{M_{Jup}}$)	1.54 ± 0.12	1.47 ± 0.11	1.48 ± 0.10	1.47 ± 0.11	1.48 ± 0.11	1.46 ± 0.11
R_b ($\mathrm{R_{Jup}}$)	1.590 ± 0.051	1.554 ± 0.041	1.559 ± 0.038	1.554 ± 0.047	1.558 ± 0.044	1.546 ± 0.045
g_b ($\mathrm{m\,s^{-2}}$)	15.12 ± 0.93	15.12 ± 0.93	15.12 ± 0.93	15.12 ± 0.93	15.12 ± 0.93	15.12 ± 0.93
ρ_b (ρ_Jup)	0.359 ± 0.027	0.367 ± 0.026	0.366 ± 0.026	0.367 ± 0.027	0.366 ± 0.027	0.369 ± 0.027
T'_eq (K)	2495 ± 66	2495 ± 66	2495 ± 66	2495 ± 66	2495 ± 66	2495 ± 66
Θ	0.0304 ± 0.0019	0.0311 ± 0.0019	0.0310 ± 0.0019	0.0311 ± 0.0020	0.0310 ± 0.0019	0.0313 ± 0.0020
a (AU)	0.02024 ± 0.00059	0.01978 ± 0.00045	0.01985 ± 0.00041	0.01978 ± 0.00053	0.01982 ± 0.00049	0.01968 ± 0.00051
Age (Gyr)		$4.1^{+1.5}_{-1.6}$	$3.5^{+1.6}_{-1.0}$	$3.9^{+1.9}_{-1.4}$	$3.4^{+2.1}_{-1.1}$	$4.1^{+2.1}_{-1.1}$